

INFORMATION DISCLOSURE CITATION PTO-1449			Atty. Docket No. NMT1 1002-9		Serial No. 10/068,513-3666	
			Applicant PIERRAT, Christophe			
			Filing Date 2/6/2002		Group 1756	
U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
SPM	5,302,477	4/12/1994	Dao, et al.	430	5	8/21/1992
SPM	5,308,741	5/3/1994	Kemp	430	312	7/31/1992
SPM	5,324,600	6/28/1994	Jinbo, et al.	430	5	7/7/1992
SPM	5,364,716	11/15/1994	Nakagawa, et al.	430	5	9/3/1992
SPM	5,472,814	12/5/1995	Lin	430	5	11/17/1994
SPM	5,523,186	6/4/1996	Lin, et al.	430	5	12/16/1994
SPM	5,527,645	6/18/1996	Pati, et al.	430	5	11/17/1994
SPM	5,537,648	7/16/1996	Liebmann, et al.	395	500	8/15/1994
SPM	5,538,815	7/23/1996	Oi, et al.	430	5	9/14/1993
SPM	5,565,286	10/15/1996	Lin	430	5	11/17/1994
SPM	5,573,890	11/12/1996	Spence	430	311	7/18/1994
SPM	5,595,843	1/21/1997	Dao	430	5	3/30/1995
SPM	5,620,816	4/15/1997	Dao	430	5	10/13/1995
SPM	5,635,316	6/3/1997	Dao	430	5	10/13/1995
SPM	5,636,131	6/3/1997	Liebmann, et al.	364	490	5/12/1995
SPM	5,702,848	12/30/1997	Spence	430	5	8/23/1996
SPM	5,761,075	6/2/1998	Oi, et al.	364	488	5/31/1996
SPM	5,766,804	6/16/1998	Spence	430	5	8/23/1996
SPM	5,766,806	6/16/1998	Spence	430	5	9/9/1996
SPM	5,807,649	9/15/1998	Liebmann, et al.	430	5	10/31/1996
SPM	5,858,580	1/12/1999	Wang, et al.	430	5	9/17/1997
SPM	5,923,562	7/13/1999	Liebmann, et al.	364	488	10/18/1996
SPM	5,923,566	6/13/1999	Galan, et al.	364	489	3/25/1997

EXAMINER: MohamedullaDate Considered: 10/24/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No.		Serial No.		
		NMT1 1002-9		10/068,513-3666		
		Applicant				
		PIERRAT, Christophe				
		Filing Date		Group		
		2/6/2002		1756		
U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
SPM	5,994,002	11/30/1999	Matsuoka	430	5	9/4/1997
SPM	5,998,068	12/7/1999	Matsuoka	430	5	1/27/1998
SPM	6,057,063	5/2/2000	Liebmann, et al.	430	5	4/14/1997
SPM	6,066,180	5/23/2000	Kim, et al.	716	19	3/15/1999
SPM	6,083,275	7/4/2000	Heng, et al.	716	19	1/9/1998
SPM	6,130,012	10/10/2000	May, et al.	430	5	1/13/1999
SPM	6,139,994	10/31/2000	Broeck, et al.	430	5	6/25/1999
SPM	6,185,727 B1	2/6/2001	Liebmann	716	19	12/12/1995
SPM	6,228,539 B1	5/8/2001	Wang, et al.	430	5	1/12/1999
SPM	6,251,549 B1	6/26/2001	Levenson	430	11	10/28/1999
SPM	6,258,493 B1	7/10/2001	Wang, et al.	430	5	7/17/2000
SPM	6,335,128 B1	1/1/2002	Cobb, et al.	430	5	9/28/1999
SPM	6,338,922 B1	1/15/2002	Liebmann, et al.	430	5	5/8/2000
SPM	2001/0000240 A1	4/12/2001	Wang, et al.	430	5	12/7/2000
SPM	2001/0028985 A1	10/11/2001	Wang, et al.	430	5	4/20/2001

EXAMINER: Mohamed OkaDate Considered: 10/24/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449			Atty. Docket No. Serial No. NMT1 1002-9 10/068,513-3666				
			Applicant PIERRAT, Christophe				
			Filing Date Group 2/6/2002 1756				
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
SKM	JP 6-67403	3/11/1994	JP	—	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SKM	WO 01/23961 A1	4/5/2001	WO	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 1,283,925	2/14/1991	JP	—	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SKM	WO 02/03140 A1	1/10/2002	WO	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 2-140743	5/30/1990	JP	—	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SKM	GB 2,333,613 A	7/28/1999	GB	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 2,638,561	4/25/1997	JP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 2,650,962	5/16/1997	JP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	EP 0 653 679 A2	5/17/1995	EP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 8,051,068	2/20/1996	JP	—	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SKM	JP 8-236317	9/6/1996	JP	—	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SKM	JP 10-133356	5/22/1998	JP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 11-143085	5/28/1999	JP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	JP 62067547	3/27/1987	JP	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	WO 98/12605 A1	3/26/1998	WO	—	—	<input type="checkbox"/>	<input type="checkbox"/>
SKM	DE 195 45 163 A1	6/5/1996	DE	—	—	<input type="checkbox"/>	<input type="checkbox"/>

EXAMINER: MohamedollaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No.	Serial No.
		NMTI 1002-9	10/068,513-3666
		Applicant	
		PIERRAT, Christophe	
		Filing Date	Group
		2/6/2002	1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
	Ackmann, P., et al., "Phase Shifting and Optical Proximity Corrections to Improve CD Control on Logic Devices in Manufacturing for Sub 0.35 um I-Line", Advance Micro Devices (8 pages).		
	Matsuoka, K., et al., "Application of Alternating Phase-Shifting Mask to 0.16um CMOS Logic Gate Patterns", Matsushita Electric Ind. Co., Ltd. (9 pages).		
	Wang, R., et al., ^{Polarized} "Polarized Phase Shift Mask: Concept, Design, and Potential Advantages to Photolithography Process and Physical Design", Motorola Semiconductor Product Sector (12 pages).		
	Ogawa, K., et al., "Phase Defect Inspection by Differential Interference", Lasertec Corporation (12 pages).		
	Pistor, T., "Rigorous 3D Simulation of Phase Defects in Alternating Phase-Shifting Masks", Panoramic Technology Inc. (13 pages).		
	Semmler, A., et al., "Application of 3D EMF Simulation for Development and Optimization of Alternating Phase Shifting Masks", Infineon Technologies AG (12 pages).		
	Wong, A., et al., "Polarization Effects in Mask Transmission", University of California Berkeley (8 pages).		
	Erdmann, A., "Topography Effects and Wave Aberrations in Advanced PSM-Technology", Fraunhofer Institute of Integrated Circuits (11 pages).		
	Granik, Y., et al., "CD Variation Analysis Technique and its Application to the Study of PSM Mask Misalignment", Mentor Graphics (9 pages).		
	Hanyu, et al., "New Phase-Shifting Mask with Highly Transparent SiO2 Phase Shifters", Fujitsu Laboratories Ltd. (11 pages).		
	Ishiwata, N., et al., "Fabrication of Phase-Shifting Mask", Fujitsu Limited (11 pages).		
	Levenson, M., et al., "Phase Phirst! An Improved Strong-PSM Paradigm", M.D. Levenson Consulting, Petersen Advanced Lithography, KLA-Tencor (10 pages).		
	Levenson, M., et al., "SCAA Mask Exposures and Phase Phirst Design for 110nm and Below", M.D. Levenson Consulting, Canon USA, Inc., JSR Microelectronics, Inc. (10 pages).		
	Lin, B.J., "The Relative Importance of the Building Blocks for 193nm Optical Lithography", Linnovation, Inc. (12 pages).		

EXAMINER: MohamedollaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No.	Serial No.
		NMTI 1002-9	10/068,513-3666
		Applicant	
		PIERRAT, Christophe	
		Filing Date	Group
		2/6/2002	1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
	McCallum, M., et al., "Alternating PSM Mask Performance - a Study of Multiple Fabrication Technique Results", International SEMATECH (6 pages).		
	Morikawa, Y., et al., "100nm-alt PSM Structure Discussion for ArF Lithography", Dai-Nippon Printing Co., Ltd. (15 pages).		
	Orski, T., et al., "A 0.15um KrF Lithography for 1Gb DRAM Product Using Highly-Pristable Patterns and Thin Resist Process", Toshiba Corporation (2 pages).		
	Rhys, P., et al., "Characterization of Quartz Etched PSM Masks for KrF Lithography at the 100nm Node", Photonics, Inc., MIT Lincoln Lab, ARCH Chemicals, Finle Technologies, KLA Tencor Corp. (10 pages).		
	Rosenbluth, A., et al., "Optimum Mask and Source Patterns to Print a Given Shape", IBM (17 pages).		
	Schmidt, R., et al., "Impact of Coma on CD Control for Multiphase PSM Designs", AMD, ASML (10 pages).		
	Sewell, H., et al., "An Evaluation of the Dual Exposure Technique", SVG Lithography Systems Inc. (11 pages).		
	Spence, C., et al., "Optimization of Phase-Shift Mask Designs including Defocus Effects", AMD, Princeton University, Vecor Technologies Inc. (8 pages).		
	Suzuki, A., et al., "Multilevel Imaging System Realizing k1 ~ -0.3 Lithography", Canon Inc. (13 pages).		
	Vandenbergh, G., et al., "(Sub-)100nm Gate Patterning Using 248nm Alternating PSM", IMEC, Mentor Graphics (9 pages).		
	Fritze, M., et al., "100-nm Node Lithography with KrF?", MIT Lincoln Lab, Numerical Technologies, Photonics, Arch Chemicals (14 pages).		
	Fukuda, H., et al., "Patterning of Random Interconnect Using Double Exposure of Strong-Type PSMs", Hitachi Central Research Lab (8 pages).		
	Ferguson, R., et al., "Pattern-Dependent Correction of Mask Topography Effects for Alternating Phase-Shifting Masks", IBM Microelectronics, University of California Berkeley (12 pages).		
	Toubian, O., et al., "Phase and Transmission Errors Aware OPC Solution for PSM: Feasibility Demonstration", Mentor Graphics Corp. (7 pages).		

EXAMINER: Mohamedulla

Date Considered:

10/27/03

EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No.	Serial No.
		NMTI 1002-9	10/068,513-3666
		Applicant	
		PIERRAT, Christophe	
		Filing Date	Group
		2/6/2002	1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
	Yanagishita, Y., et al., "Phase-Shifting Photolithography Applicable to Real IC Patterns", Fujitsu Limited (11 pages).		
SRM	Levenson, M., et al., "Improving Resolution in Photolithography with a Phase-Shifting Mask", IEEE, Transactions On Electron Devices, Vol. ED-29, No. 12, pp. 1828-1836, December 1982.		
SRM	Levenson, M., et al., "The Phase-Shifting Mask II: Imaging Simulations and Submicrometer Resist Exposures", IEEE Transactions on Electron Devices, Vol. ED-31, No. 6, pp. 753-763, June 1984.		
SRM	Terasawa, T., et al., "0.3-Micron Optical Lithography Using a Phase-Shifting Mask", SPIE, Optical/Laser Microlithography II, Vol. 1088, pp. 25-33, March 1989.		
SRM	Nitayama, A., et al., "New Phase Shifting Mask with Self-Aligned Phase Shifters for a Quarter Micron Photolithography", IEDM, pp. 3.3.1-3.3.4, December 3-6, 1989.		
SRM	Jinbo, H., et al., "0.2um or Less 1-Line Lithography by Phase-Shifting-Mask Technology", IEEE, pp. 33.3.1-33.3.4 (1990).		
SRM	Neureuther, A., "Modeling Phase Shifting Masks", SPIE, 10th Annual Symposium On Microlithography, Vol. 1496, pp. 80-85 (1990).		
SRM	Yamanaka, T., et al., "A 5.9um ² Super Low Power SRAM Cell Using a New Phase-Shift Lithography", IEDM, pp. 18.3.1-18.3.4 (1990).		
SRM	Inokuchi, K., et al., "Sub-Quarter Micron Gate Fabrication Process Using Phase-Shifting-Mask for Microwave GaAs Devices", Extended Abstracts Of The 1991 Intl. Conference On Solid State Devices And Materials, Yokohama, Japan, pp. 92-94 (1991).		
SRM	Inokuchi, K., et al., "Sub-Quarter-Micron Gate Fabrication Process Using Phase-Shifting Mask for Microwave GaAs Devices", Japanese Journal Of Applied Physics, Vol. 30, No. 12B, pp. 3818-3821, December 1991.		
SRM	Jinbo, H., et al., "Improvement of Phase-Shifter Edge Line Mask Method", Japanese Journal Of Applied Physics, Vol. 30, No. 11B, pp. 2998-3003, November 1991.		
SRM	Kimura, T., et al., "Subhalf-Micron Gate GaAs Mesfet Process Using Phase-Shifting-Mask Technology", IEEE, GaAs IC Symposium, pp. 281-284 (1991).		
SRM	Wiley, J., et al., "Phase Shift Mask Pattern Accuracy Requirements and Inspection Technology", SPIE, Integrated Circuit Metrology, Inspection, And Process Control V, Vol. 1464, pp. 346-355 (1991).		
SRM	Hirai, Y., et al., "Automatic Pattern Generation System for Phase Shifting Mask", 1991 Symposium on VLSI Technology, Digest of Technical Papers, pp. 95-96, May 28-30, 1991.		

EXAMINER: MohamedullaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No. NMTI 1002-9	Serial No. 10/068,513-3666
		Applicant PIERRAT, Christophe	
		Filing Date 2/6/2002	Group 1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
SRM	Wong, A., et al., "Investigating Phase-Shifting Mask Layout Issues Using a Cad Toolkit", IEEE, pp. 27.4.1-27.4.4 (1991).		
SRM	Terasawa, T., et al., "Imaging Characteristics of Multi-Phase-Shifting and Halftone Phase-Shifting Masks", Japanese Journal of Applied Physics, Vol. 30, No. 11B, pp. 2991-2997, November 1991.		
SPM	Burggraaf, P., "Four More Significant Japanese Advances in Phase Shifting Technology", Semiconductor International, p. 16, December 1991.		
SRM	Kemp, K., et al., "Optimized Phase Shift Mask Designs for Real Devices", KTI Microlithography Seminar, pp. 67-75, October 14-15, 1991.		
SRM	Newmark, D., et al., "Phase-Shifting Mask Design Tool", SPIE - 11th Annual BACUS Symposium on Photmask Technology, Vol. 1604, pp. 226-235, September 25-27, 1991.		
SRM	Nolscher, C., et al., "Investigation of Self-Aligned Phase-Shifting Reticles by Simulation Techniques", SPIE - Optical/Laser Microlithography IV, Vol. 1463, pp. 135-150 (1991).		
SRM	Inoue, S., et al., "Simulation Study on Phase-Shifting Masks for Isolated Patterns", Japanese Journal of Applied Physics, Vol. 30, No. 11B, pp. 3010-3015, November 1991.		
SRM	Watanabe, H., et al., "Detection and Printability of Shifter Defects in Phase-Shifting Masks", Japanese Journal of Applied Physics, Vol. 30, No. 11B, pp. 3016-3020, November 1991.		
SRM	Watanabe, H., et al., "Pattern Transfer Characteristics of Transparent Phase Shifting Mask", Japanese Journal of Applied Physics, Vol. 30, No. 11B, pp. 3004-3009, November 1991.		
SRM	Jinbo, H., et al., "Application of Blind Method to Phase-Shifting Lithography", IEEE, 1992 Symposium On VLSI Technology Digest Of Technical Papers, pp. 112-113 (1992).		
SRM	Watanabe, H., et al., "Detection and Printability of Shifter Defects in Phase-Shifting Masks II Defocus Characteristics", Jpn. J. Appl. Phys., Vol. 31, pp. 4155-4160 (1992).		
SRM	Pierrat, C., et al., "Phase-Shifting Mask Topography Effects on Lithographic Image Quality", IEEE, pp. 3.3.1-3.3.4 (1992).		
SRM	Burggraaf, P., "Lithography's Leading Edge, Part 1: Phase-Shift Technology and Part 2: I-Line and Beyond", Semiconductor International, pp. 43-47 and 52-56, February 1992.		
SRM	IBM, "Phase-Shift Mask Utilizing Silicon Oxy-Nitride as a Low Reflectivity Phase-Shift Layer", IBM Technical Disclosure Bulletin, Vol. 34, No. 10B, pp. 360-361, March 1992.		

EXAMINER: MohamedwllaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No. NMTI 1002-9	Serial No. 10/068,513-3666
		Applicant PIERRAT, Christophe	Filing Date 2/6/2002
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
SLM	Brunner, T., et al., "170nm Gates Fabricated by Phase-Shift Mask and Top Anti-Reflector Process", SPIE, Optical/Laser Microlithography VI, Vol. 1927, pp. 182-189 (1993).		
SLM	Lin, B.J., "Phase-Shifting Masks Gain an Edge", IEEE Circuits & Devices, pp. 28-35, March 1993.		
SLM	Moniwa, A., et al., "Algorithm for Phase-Shift Mask Design with Priority on Shifter Placement", Jpn. J. Appl. Phys., Vol. 32, Pt. 1, No. 12B, pp. 5874-5879, December 1993.		
SLM	Ooi, K., et al., "Computer Aided Design Software for Designing Phase-Shifting Masks", Jpn. J. Appl. Phys., Vol. 32, Pt. 1, No. 12B, pp. 5887-5891, December 1993.		
SLM	Ohtsuka, H., et al., "Evaluation of Repair Phase and Size Tolerance for a Phase-Shift Mask", J. Vac. Sci. Technol. B, Vol. 11, No. 6, pp. 2665-2668, November/December 1993.		
SLM	Ronse, K., et al., "Comparison of Various Phase Shift Strategies and Application to 0.35um ASIC Designs", SPIE - Optical/Laser Microlithography VI, Vol. 1927, pp. 2-16 (1993).		
SLM	Galan, G., et al., "Application of Alternating-Type Phase Shift Mask to Polysilicon Level for Random Logic Circuits", Jpn. J. Appl. Phys., Vol. 33, pp. 6779-6784 (1994).		
SLM	Mizuno, F., et al., "Practical Phase-Shifting Mask Technology for 0.3um Large Scale Integrations", J. Vac. Sci. Technol. B, Vol. 12, No. 6, pp. 3799-3803, November/December 1994.		
SLM	Pati, Y.C., et al., "Phase-Shifting Masks for Microlithography: Automated Design and Mask Requirements", J. Opt. Soc. Am., Vol. 11, No. 9, pp. 2438-2452, September 1994.		
SLM	Stirmman, J., et al., "Wafer Proximity Correction and Its Impact on Mask-Making", Bacus News, Vol. 10, Issue 1, pp. 1, 3-7, 10-12, January 1994.		
SLM	Waas, T., et al., "Automatic Generation of Phase Shift Mask Layouts", Microelectronic Engineering, Vol. 23, pp. 139-142 (1994).		
SLM	Barouch, E., et al., "OPTIMASK: An OPC Algorithm for Chrome and Phase-Shift Mask Design", SPIE, Vol. 2440, pp. 192-206, February 1995.		
SLM	Moniwa, A., et al., "Heuristic Method for Phase-Conflict Minimization in Automatic Phase-Shift Mask Design", Jpn. J. Appl. Phys., Vol. 34, Pt. 1, No. 12B, pp. 6584-6589, December 1995.		
SLM	Langston, J., et al., "Extending Optical Lithography to 0.25um and Below", Solid State Technology, pp. 57-64, March 1995.		

EXAMINER: MohamedullaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449		Atty. Docket No.	Serial No.
		NMTI 1002-9	10/068,513-3666
		Applicant	
		PIERRAT, Christophe	
		Filing Date	Group
		2/6/2002	1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
<i>SPM</i>	Nagahiro, Y., "Improved Mask Technique for Photolithography Applied to 0.25um LSI - Improvement of Resolution, Pattern Correction, Exposure Area", Nikkei Microdevices, pp. 1-6, April 1995.		
<i>SPM</i>	Okamoto, Y., et al., "A New Phase Shifting Mask Technology for Quarter Micron Photolithography", SPIE, Vol. 2512, pp. 311-318 (1995).		
<i>SPM</i>	Pierrat, C., et al., "Required Optical Characteristics of Materials for Phase-Shifting Masks", Applied Optics, Vol. 34, No. 22, pp. 4923-4928, August 1, 1995.		
<i>SPM</i>	Galan, G., et al., "Alternating Phase Shift Generation for Complex Circuit Designs", SPIE, Vol. 2884, pp. 508-519, September 18-20, 1996.		
<i>SPM</i>	Kanai, H., et al., "Sub-Quarter Micron Lithography with the Dual-Trench Type Alternating PSM", SPIE, Vol. 2793, pp. 165-173 (1996).		
<i>SPM</i>	Ishiwata, N., et al., "Novel Alternating Phase Shift Mask with Improved Phase Accuracy", SPIE, Proceedings Of The 17th Annual Symposium On Photomask Technology And Management, Vol. 3236, pp. 243-249 (1997).		
<i>SPM</i>	Morimoto, H., et al., "Next Generation Mask Strategy - Technologies are Ready for Mass Production of 256MDRAM?", SPIE, Vol. 3236, pp. 188-189 (1997).		
<i>SPM</i>	Roman, B., et al., "Implications of Device Processing on Photomask CD Requirements", SPIE, Vol. 3236 (1997) (Abstract Only).		
<i>SPM</i>	Nakae, A., et al., "A Proposal for Pattern Layout Rule in Application of Alternating Phase Shift Mask", SPIE, Vol. 3096, pp. 362-374 (1997).		
<i>SPM</i>	Tsujimoto, E., et al., "Hierarchical Mask Data Design System (PROPHET) for Aerial Image Simulation, Automatic Phase-Shifter Placement, and Subpeak Overlap Checking", SPIE, Vol. 3096, pp. 163-172 (1997).		
<i>SPM</i>	Yamamoto, K., et al., "Hierarchical Processing of Levenson-Type Phase Shifter Generation", Jpn. J. Appl. Phys., Vol. 36, Part 1, No. 12B, pp. 7499-7503, December 1997.		
<i>SPM</i>	Gordon, R., et al., "Design and Analysis of Manufacturable Alternating Phase-Shifting Masks", Bacus News, Vol. 14, Issue 12, pp. 1-9, December 1998.		
<i>SPM</i>	Nara, M., et al., "Phase Controllability Improvement for Alternating Phase Shift Mask", Dai Nippon Printing Co., Ltd. (16 pages).		
<i>SPM</i>	Ohnuma, H., et al., "Lithography Computer Aided Design Technology for Embedded Memory in Logic", Jpn. J. Appl. Phys., Vol. 37, Part 1, No. 12B, pp. 6686-6688, December 1998.		

EXAMINER: MohamedullaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No. NMTI 1002-9	Serial No. 10/068,513-3666
	Applicant PIERRAT, Christophe	
	Filing Date 2/6/2002	Group 1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER'S INITIALS	CITATION	
<i>SPM</i>	Fukuda, H., "Node-Connection/Quantum Phase-Shifting Mask: Path to Below 0.3um Pitch, Proximity Effect Free, Random Interconnects and Memory Patterning", J. Vac. Sci. Technol. B, Vol. 17, No. 6, pp. 3291-3295, November/December 1999.	
<i>SPM</i>	Spence, C., et al., "Integration of Optical Proximity Correction Strategies in Strong Phase Shifters Design for Poly-Gate Layers", Bacus News, Vol. 15, Issue 12, pp. 1, 4-13, December 1999.	
<i>SPM</i>	Kuo, C., et al., "Extension of Deep-Ultraviolet Lithography for Patterning Logic Gates Using Alternating Phase Shifting Masks", J. Vac. Sci. Technol. B, Vol. 17, No. 6, pp. 3296-3300, November/December 1999.	
<i>SPM</i>	Palmer, S., et al., "Dual Mask Model-Based Proximity Correction for High Performance 0.10um CMOS Process", The 44th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication Abstracts, pp. 18-19, May 30-June 2 2000	
<i>SPM</i>	Kikuchi, K., et al., "Method of Expanding Process Window for the Double Exposure Technique with alt-PSMs", Optical Microlithography XIII, Proceeding of SPIE, Vol. 4000, pp. 121-131 (2000).	

EXAMINER: MohamedollaDate Considered: 10/27/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

#4



SHEET 1 of 2

INFORMATION DISCLOSURE CITATION PTO-1449	Atty. Docket No. NMTI 1002-9	Serial No. 10/068,513
	Applicant PIERRAT, Christophe	
	Filing Date 2/6/2002	Group 1756

RECEIVED
 JAN 24 2003
 TC 1700

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
SPM	6,420,074 B2	7/16/2002	Wang et al.	430	5	12/7/2000
SPM	6,436,590 B2	8/20/2002	Wang, et al.	430	5	4/20/2001
SPM	2002/0127479 A1	9/12/2002	Pierrat	430	5	2/6/2002
SPM	2002/0129327 A1	9/12/2002	Pierrat, et al.	716	19	11/15/2001
SPM	2002/0152454 A1	10/17/2002	Cote, et al.	716	21	6/7/2002
SPM	2002/0155363 A1	10/24/2002	Cote, et al.	430	5	6/7/2002

EXAMINER: MohamedullaDate Considered: 10/24/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SHEET 2 of 2

INFORMATION DISCLOSURE CITATION PTO-1449		Att. Docket No. NMTJ 1002-9 Applicant PIERRAT, Christophe Filing Date 2/6/2002	Serial No. 10/068,513 Group 1756
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EXAMINER'S INITIALS	CITATION		
SLM	Cooke, M., "OPC/PSM Designs For Poly Gate Layers", European Semiconductor, Vol. 22, No. 7, pp. 57-59, July 2000.		
SLM	Granik, Y., et al., "Sub-Resolution Process Windows And Yield Estimation Technique Based On Detailed Full-Chip CD Simulation", SPIE, Vol. 4182, pp. 335-341 (2000).		
SLM	Plat, M., et al., "The Impact of Optical Enhancement Techniques on the Mask Error Enhancement Function (MEEF)", SPIE, Vol. 4000, pp. 206-214, March 1-3, 2000.		
SLM	Mansuripur, M., et al., "Projection Photolithography", Optics & Photonics News 11, 17 pages, February 2000.		

RECEIVED
JAN 24 2003
TC 1700EXAMINER: MohamedollaDate Considered: 10/24/03

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

NTI Use Only: 706CIP1; 1RS; 1